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Listing of Claims:

1. (Currently amended) A method for adjusting a damping coefficient of a spring strut of a vehicle, the method comprising the steps of: damping said spring strut with a first damping coefficient for a first wheel load; ~~detecting~~ measuring at least one of a longitudinal vehicle acceleration and transverse vehicle acceleration and determining a change of said first wheel load from the vehicle acceleration; determining a second damping coefficient based on said change of said first wheel load so that the damping after said change remains essentially constant.

2. (Canceled)

3. (Canceled).

4. (Previously presented) The method of claim 1, wherein said change of said wheel load is detected by also considering an added load.

5. (Previously presented) The method of claim 1, wherein a slope inclination angle is considered in the detection of said change of said wheel load.

6. (Previously presented) The method of claim 1, wherein the detection of said change of said wheel load takes place by measuring a wheel contact force.

7. (Previously presented) The method of claim 6, wherein the measurement of the wheel contact force takes place by measuring an air spring pressure of a damper and an elevation distance between a vehicle axle and the bodywork.

8. (Previously presented) The method of claim 1, wherein quantities, which are required for the detection of a change of said wheel load, are made available via a bus system.

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9. (Previously presented) The method of claim 1, wherein said second damping coefficient is increased relative to said first damping coefficient during an increase of said wheel load essentially proportionally to the root from the increase of said wheel load.

10. (Previously presented) The method of claim 1, wherein said second damping coefficient is increased relative to said first damping coefficient during an increase of said wheel load essentially proportionally to said increase of said wheel load.

11. (Previously presented) The method of claim 1, wherein said second damping coefficient (Kd2) is computed as follows: $Kd2 = \xi_1 * 2\sqrt{Ks*(M1+\Delta M)}$ wherein:

ξ_1 = damping of the spring strut;

Ks = spring stiffness of the spring strut;

M1 = first wheel load; and,

ΔM = change of the wheel load.

12. (Previously presented) The method of claim 1, wherein the control of the damping is carried out separately for each damper of the vehicle.

13. (Previously presented) The method of claim 1, comprising the further steps of: comparing the change of said wheel load to a threshold value; and, changing the damping to improve the roadway-tire contact when said change exceeds said threshold value.

14. (Previously presented) The method of claim 13, comprising the further step of switching over said method to a ground-hook method when said threshold value is exceeded.

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15. (Previously presented) The method of claim 1, comprising the further step of limiting a change of said second damping coefficient relative to said first damping coefficient by a maximum value with said maximum value being dependent upon a speed of said vehicle.

16. (Previously presented) The method of claim 15, comprising the further step of increasing said maximum value with increasing speed of said vehicle.

17. (Canceled)

18. (Currently amended) A control system for controlling a damping for a spring strut of a vehicle, the control system comprising: means for computing a damping coefficient (Kd2) based on a change of a wheel load so that the damping remains essentially unchanged after the change of said wheel load; further comprising means for measuring a vehicle acceleration in at least one of longitudinal and transverse directions, said means for computing said damping coefficient being so configured that a change of said wheel load is determined from the acceleration data and [[,]] means for outputting an actuating quantity for a damper to adjust said damping coefficient.

19. (Previously presented) The control system of claim 18, wherein said means for computing the damping coefficient is configured for access to a data bus in order to access data for the computation of the damping coefficient.

20. (Canceled)

21. (Previously presented) The control system of claim 18, further comprising a ground-hook control module and a comparator for comparing the change of the wheel load to a threshold value; and, means for switching over to said ground-hook control module when said threshold value is exceeded.

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